

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims

1. (currently amended) ~~A method for providing bandwidth sensitive data compression in a data processing system, the method comprising the steps of:~~

compressing data using an first compression routine providing a first compression rate, wherein the first compression routine comprises a first compression algorithm;

tracking the throughput of the a data processing system to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined throughput threshold, compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, to increase the throughput of the data processing system to at least the predetermined throughput level, wherein the second compression routine comprises a second compression algorithm.

2. (currently amended) A method comprising:

compressing data using an first compression routine providing a first compression rate;

tracking the throughput of a data processing system to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined throughput threshold, compressing data using a second compression routine providing a second compression rate that is

greater than the first compression rate, to increase the throughput of the data processing system to at least the predetermined throughput level, The method of claim 1, wherein the first compression routine comprises an asymmetric routine and wherein the second compression routine comprises a symmetric routine.

3. (currently amended) A method comprising:  
compressing data using an first compression routine  
providing a first compression rate;  
tracking the throughput of a data processing system to  
determine if the first compression rate provides a throughput  
that meets a predetermined throughput threshold; and  
when the tracked throughput does not meet the predetermined  
throughput threshold, compressing data using a second  
compression routine providing a second compression rate that is  
greater than the first compression rate, to increase the  
throughput of the data processing system to at least the  
predetermined throughput level; and The method of claim 1,  
further comprising the steps of  
utilizing the second routine to perform compression until  
the throughput of the data processing system is determined to  
meet the predetermined throughput threshold, and then reusing  
the first compression routine.

4. (original) The method of claim 3, wherein the first compression routine comprises a default asymmetrical algorithm.

5. (currently amended) A method comprising:  
compressing data using an first compression routine  
providing a first compression rate;

tracking the throughput of a data processing system to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined throughput threshold, compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, to increase the throughput of the data processing system to at least the predetermined throughput level; and ~~The method of claim 1, further comprising the steps of~~

processing a user command to load a user-selected compression routine for compressing data.

6. (currently amended) A method comprising:  
compressing data using an first compression routine  
providing a first compression rate;

tracking the throughput of a data processing system to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined throughput threshold, compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, to increase the throughput of the data processing system to at least the predetermined throughput level; ~~The method of claim 1, further comprising the steps of:~~

processing a user command to compress user-provided data;  
and

automatically selecting a compression routine associated with a data type of the user-provided data.

7. (currently amended) A method comprising:

compressing data using an first compression routine  
providing a first compression rate;

tracking the throughput of a data processing system to  
determine if the first compression rate provides a throughput  
that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined  
throughput threshold, compressing data using a second  
compression routine providing a second compression rate that is  
greater than the first compression rate, to increase the  
throughput of the data processing system to at least the  
predetermined throughput level, The method of claim 1, wherein  
the step of tracking throughput comprises tracking a number of  
pending access requests to a storage device.

8. (currently amended) A method comprising:  
compressing data using an first compression routine  
providing a first compression rate;

tracking the throughput of a data processing system to  
determine if the first compression rate provides a throughput  
that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined  
throughput threshold, compressing data using a second  
compression routine providing a second compression rate that is  
greater than the first compression rate, to increase the  
throughput of the data processing system to at least the  
predetermined throughput level, The method of claim 1, wherein  
the step of tracking throughput comprises tracking a number of  
pending requests for data transmission over a communication  
channel.

9. (currently amended) A method for providing accelerated  
data storage, comprising the steps of:

receiving a digital data stream at an input data transmission rate that is greater than a data storage rate of a target storage device;

compressing the digital data stream at a compression rate that increases the effective data storage rate of the target storage device, wherein the compression rate is at least equal to the ratio of the input data transmission rate to the data storage rate so as to provide continuous storage of the input digital data stream at the input data transmission rate; and

storing the compressed digital data stream in the target storage device;

wherein the step of compressing comprises ~~the steps of:~~

compressing data using an first compression routine providing a first compression rate, wherein the first compression routine comprises a first compression algorithm;

tracking an amount of pending access requests to the storage device to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, if the tracked throughput does not meet the predetermined throughput threshold, wherein the second compression routine comprises a second compression algorithm.

10. (Canceled)

11. (currently amended) A system ~~for providing bandwidth sensitive data compression~~, comprising:

a data compression system for compressing and decompressing data input ~~to the system~~;

a plurality of compression routines selectively utilized by the data compression system, wherein a first one of the plurality of compression routines includes a first compression algorithm and a second one of the plurality of compression routines includes a second compression algorithm; and

a controller for tracking the throughput of the system and generating a control signal to select a compression routine based on the system throughput;—

wherein when the controller determines that the system throughput falls below a predetermined throughput threshold, the controller commands the data compression engine to use one of the plurality of compression routines to provide a faster rate of compression so as to increase the throughput.

12. (Canceled)

13. (Currently Amended) A system comprising:  
a data compression system for compressing and decompressing data input;  
a plurality of compression routines selectively utilized by the data compression system;  
a controller for tracking throughput and generating a control signal to select a compression routine based on the throughput.

wherein when the controller determines that the throughput falls below a predetermined throughput threshold, the controller commands the data compression engine to use one of the plurality of compression routines to provide a faster rate of compression so as to increase the throughput; and ~~The system of claim 11, further comprising~~

a plurality of access profiles, operatively accessible by the controller, to determine a compression routine that is associated with a data type of data to be compressed.

14. (Currently Amended) A system comprising:  
a data compression system for compressing and decompressing data input;  
a plurality of compression routines selectively utilized by the data compression system;  
a controller for tracking throughput and generating a control signal to select a compression routine based on the throughput.

wherein when the controller determines that the throughput falls below a predetermined throughput threshold, the controller commands the data compression engine to use one of the plurality of compression routines to provide a faster rate of compression so as to increase the throughput, ~~The system of claim 11,~~  
wherein the system comprises a data storage controller, wherein the system throughput comprises a number of pending access requests to a storage device.

15. (Currently Amended) A system comprising:  
a data compression system for compressing and decompressing data input;  
a plurality of compression routines selectively utilized by the data compression system;  
a controller for tracking throughput and generating a control signal to select a compression routine based on the throughput.

wherein when the controller determines that the throughput falls below a predetermined throughput threshold, the controller commands the data compression engine to use one of the plurality

of compression routines to provide a faster rate of compression so as to increase the throughput, The system of claim 11,  
wherein the system comprises a data transmission controller, wherein the system throughput comprises a number of pending transmission requests over a communication channel.

16. (currently amended) A program storage device readable by a machine, tangibly embodying a program instructions executable by the machine to perform ~~method steps for providing bandwidth sensitive data compression in a data processing system,~~ the method comprising the steps of:

compressing data using a first compression routine providing a first compression rate, wherein the first compression routine comprises a first compression algorithm;

tracking the throughput of ~~the a~~ data processing system to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined throughput threshold, compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, to increase the throughput of the data processing system to at least the predetermined throughput level, wherein the second compression routine comprises a second compression algorithm.

17. (currently amended) A program storage device readable by a machine, tangibly embodying a program instructions executable by the machine to perform ~~method steps for providing accelerated data storage,~~ the method ~~steps~~ comprising:

receiving a digital data stream at an input data transmission rate that is greater than a data storage rate of a target storage device;

compressing the digital data stream at a compression rate that increases the effective data storage rate of the target storage device, wherein the compression rate is at least equal to the ratio of the input data transmission rate to the data storage rate so as to provide continuous storage of the input digital data stream at the input data transmission rate; and

storing the compressed digital data stream in the target storage device;

wherein the step of compressing comprises ~~the steps of:~~

compressing data using a first compression routine providing a first compression rate, wherein the first compression routine comprises a first compression algorithm;

tracking an amount of pending access requests to the storage device to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, if the tracked throughput does not meet the predetermined throughput threshold, wherein the second compression routine comprises a second compression algorithm.

18. (Previously Presented) A method comprising:

using an first compression algorithm to compress data at a first compression rate to provide first compressed data to a communications channel;

tracking the throughput of the communications channel; determining if the first compression rate provides throughput that meets a predetermined throughput threshold; and

when the tracked throughput does not meet the predetermined throughput threshold, using a second compression algorithm to compress data at a second compression rate to provide second

compressed data to the communications channel, wherein the second compression rate is greater than the first compression rate and providing the second compressed data to the communications channel increases the throughput of the communications channel.

19. (new) The method of claim 1, wherein the first compression routine comprises an asymmetric routine.

20. (new) The method of claim 1, wherein the second compression routine comprises a symmetric routine.

21. (new) The method of claim 18, wherein the communications channel is a network communications channel.

22. (new) The method of claim 18, wherein a receiving device receives the first and second compressed data, and the receiving device decompresses the first and second compressed data.

23. (new) The method of claim 18, wherein the communications channel is a network communications channel, a receiving device receives the first and second compressed data, and the receiving device decompresses the first and second compressed data.

24. (new) The method of claim 18, wherein the first compression algorithm comprises an asymmetric algorithm.

25. (new) The method of claim 18, wherein the second compression algorithm comprises a symmetric algorithm.

26. (new) The method of claim 18, wherein the first compression algorithm comprises an asymmetric algorithm and the second compression algorithm comprises a symmetric algorithm.

27. (new) A method comprising:  
receiving a digital data stream at an input data transmission rate that is greater than a data storage rate of a target storage device;  
compressing the digital data stream at a compression rate that increases the effective data storage rate of the target storage device; and  
storing the compressed digital data stream in the target storage device,  
wherein the step of compressing comprises:  
compressing data using a first compression routine providing a first compression rate, wherein the first compression routine comprises a first compression algorithm;  
tracking an amount of pending access requests to the storage device to determine if the first compression rate provides a throughput that meets a predetermined throughput threshold; and

compressing data using a second compression routine providing a second compression rate that is greater than the first compression rate, if the tracked throughput does not meet the predetermined throughput threshold, wherein the second compression routine comprises a second compression algorithm.